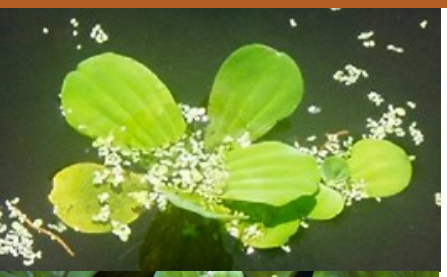
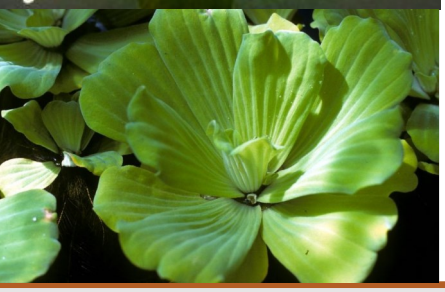
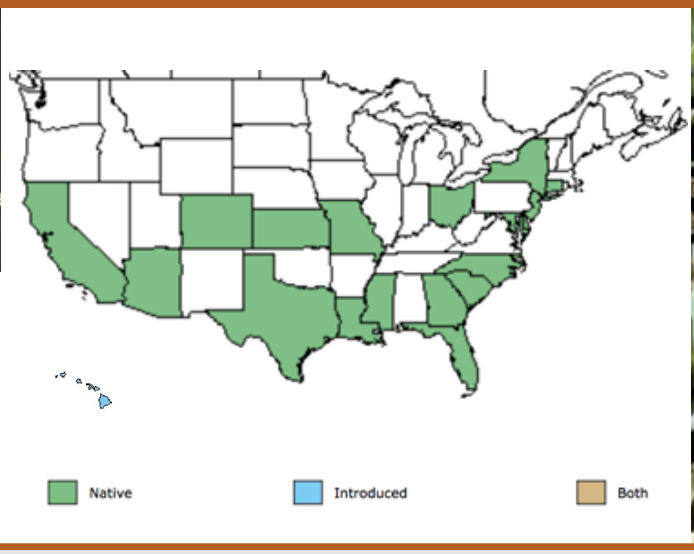
USACE Invasive Plant Species
Best Management Practices

Waterlettuce (*Pistia stratiotes*) - Araceae (Arum)







Habitat & Life History

Aquatic/riparian – Native to Africa & unknown – OBL – Perennial floating-leaved forb/herb

Integrated Management Strategy Selections

Prevention **Chemical** **Biological** **Mechanical** **Cultural**

PREVENTION

- Establish competitive native vegetation to prevent infestation, early detection & rapid response

CHEMICAL CONTROL

- Herbicides—bispyribac, carfentrazone, diquat, flumioxazin (highly effective in-water & foliar), imazamox, imazapyr, penoxsulam, & tompramezone
- Use-pattern: spot or broadcast

  *Refer to product label for specific instructions on rate & use-pattern

BIOLOGICAL CONTROL

- Agent—*Neohydronomus affinis* (water lettuce weevil)
- Rearing/Release—Field collection & transport, may require viable plant materials
- Potential biological agents—*Argentinorhynchus bruchi*, *A. breyeri* & *A. squamosus* (weevils); fungal pathogens *Ramularia* spp., & *Sclerotinia sclerotiorum*; releases of *Spodoptera pectinicornis* (water lettuce moth) in the 1990's were unsuccessful

MECHANICAL CONTROL

- Hand pull, net, rake, use of harvester or seine

CULTURAL CONTROL

- Drawdown, nutrient reduction

MANAGEMENT SEQUENCING

- Timing of control methods—best option is to apply herbicides during early spring, however it can be applied year-round
- Monitoring—closely monitor affected areas and retreat any new or existing growth
- Niche-filling/Restoration—mitigate risk of future disturbances and infestation, establish competitive native vegetation

COMMENTS

- Waterlettuce spreads by rosettes, stolons, & seeds; mechanical control may contribute to unintentional spread.

Updated—2021

Contributors, data sources, documentation @ apcrp.el.erdc.dren.mil